Gulf of Mexico Harmful Algal Bloom Bulletin

13 November 2007

NOAA Ocean Service

NOAA Satellites and Information Service

Last bulletin: November 8, 2007

Conditions Report

SW Florida: A harmful algal bloom has been identified from southern Lee to Collier County. Patchy very low impacts are possible in central Collier County on Thursday. No other coastal impacts are expected through Thursday, November 15.

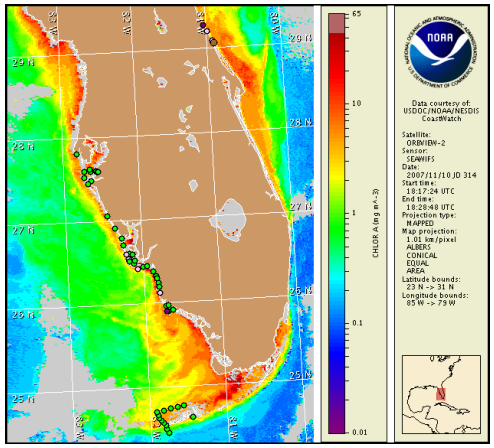
NE Florida: A harmful algal bloom has been identified from St. Johns County to central Brevard County. Patchy low impacts are possible from Flagler County to central Volusia County tonight through Wednesday, with patchy very low impacts possible today and Thursday. Patchy very low impacts are possible in central Brevard County today through Wednesday, with no impacts expected Thursday. No impacts are expected elsewhere in northeast Florida through Thursday, November 15.

Analysis

SW Florida: A harmful algal bloom previously confirmed in southern Lee County and offshore Collier County is now present in very low concentrations onshore central Collier County at Marco Island (FWRI, 11/8). Samples collected in the past week identified not present to background concentrations of *K. brevis* in southern Lee County. Chlorophyll concentrations remain elevated (4-14μg/L) alongshore Lee and Collier County, attributed in part to confirmed non-harmful algal populations. Satellite imagery (11/11) continues to show southward transport of an elevated chlorophyll region (2μg/L) offshore northern Collier County at 26°16'29"N 81°59'8"W. A large region of high chlorophyll (>10μg/L) likely containing *K. brevis* remains visible offshore northern Monroe County. This feature, centralized at 25°39'26"N 81°36'59"W on 11/11, continues to move southward according to satellite imagery. Northerly winds through Wednesday will likely minimize impacts along the coast. Continued southern transport of the bloom is likely.

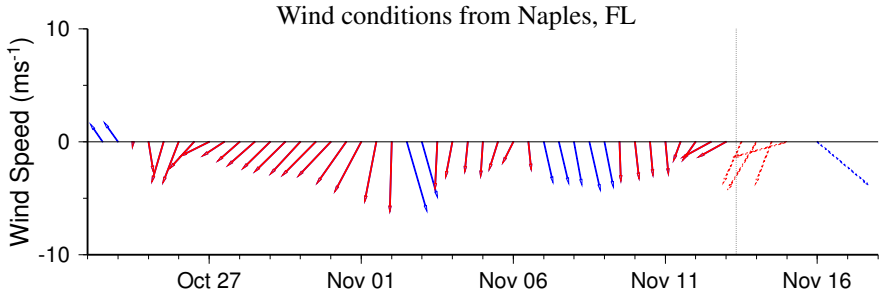
NE Florida: The harmful algal bloom present in northeastern Florida alongshore St. Johns County to central Volusia County appears to be diminishing in intensity. Samples collected over the past week have identified very low to low concentrations remaining onshore Flagler County to central Volusia County, with background to not present concentrations of *K. brevis* in all counties north of Flagler County (FWRI). Recent chlorophyll imagery (11/10) indicates that the bloom may exist in higher concentrations offshore Volusia and northern Brevard Counties. Elevated chlorophyll levels (up to 8μg/L) continue to be visible offshore Volusia County near 29°8'5"N 80°46'3"W and in a band 3-5miles from the coast along southern Volusia County. Additionally, a region of high chlorophyll (>10μg/L) is visible offshore Brevard County from 28°48'45"N 80°32'27"W to 28°29'53"N 80°28'9"W (2-7 miles offshore northern Cape Canaveral). Although chlorophyll levels have decreased at these locations over the past several days, *K. brevis* is likely still present. Onshore winds today and Wednesday may increase impacts along the coast. Minimal bloom transport expected through Thursday.

~Fisher, Allen



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from November 3 to 8 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HABFS bulletin guide:

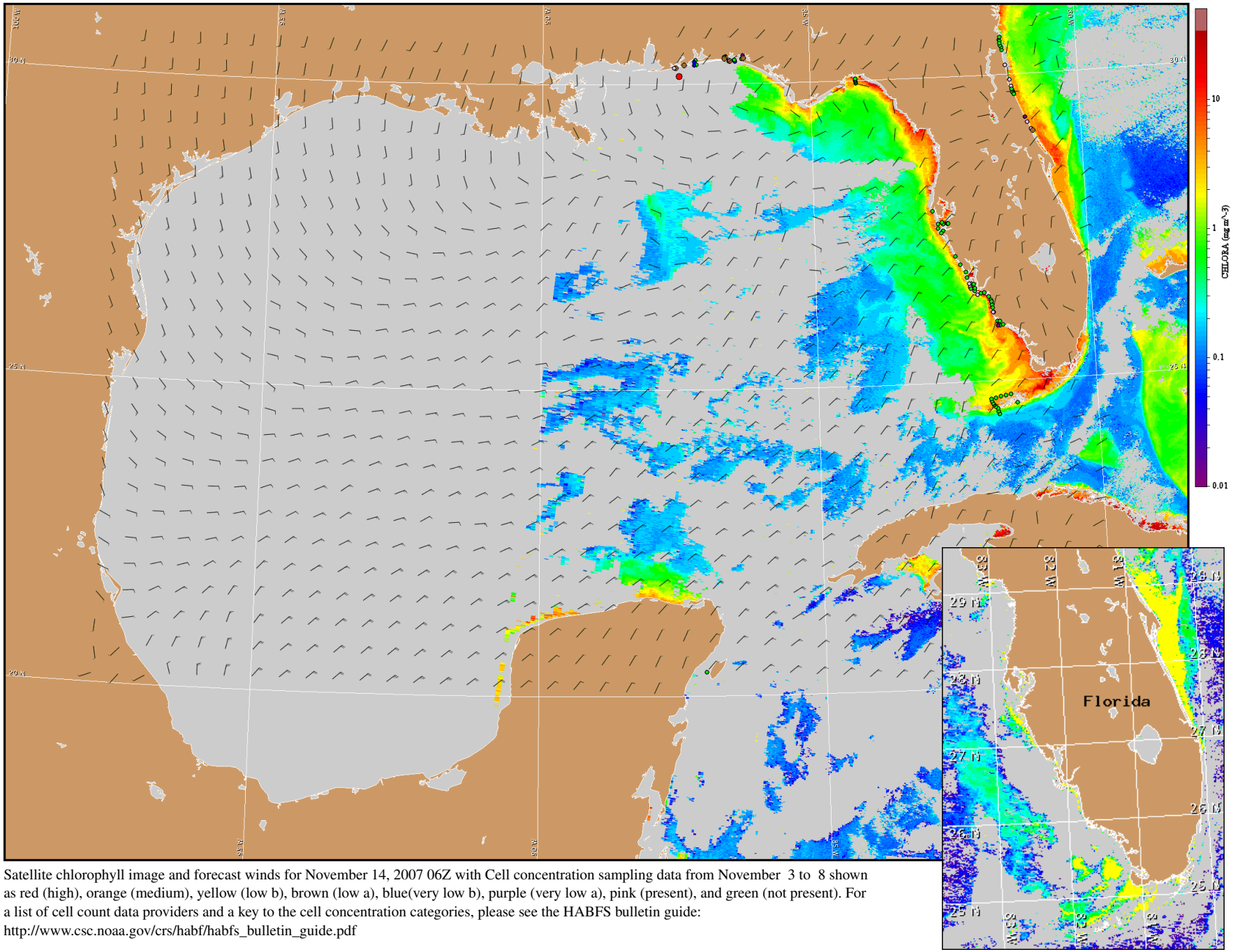
http://www.csc.noaa.gov/crs/habf/habfs_bulletin_guide.pdf



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.

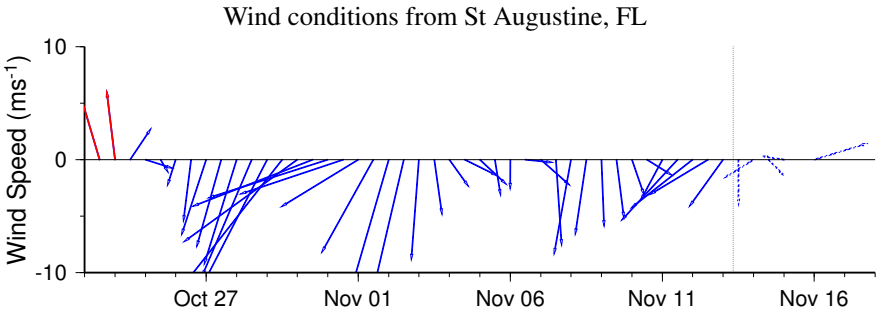
NE Florida: Easterly winds today (5-10kts, 3-5m/s) becoming northeast tonight. Northerly winds Wednesday (5-10kts), shifting northeasterly in the afternoon and southeasterly Wednesday night. Westerly winds expected Thursday.

SW Florida: Northeasterlies to northerlies today and Wednesday (10-15kts, 5-8m/s). Northwest winds Thursday (15-20kts, 8-10m/s).



Satellite chlorophyll image and forecast winds for November 14, 2007 06Z with Cell concentration sampling data from November 3 to 8 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HABFS bulletin guide: http://www.csc.noaa.gov/crs/habf/habfs_bulletin_guide.pdf

Verifi ed and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).


Wind conditions from St Augustine, FL
Wind Speed (ms-1)
10
0
-10
Oct 27
Nov 01
Nov 06
Nov 11
Nov 16